



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,303	11/07/2001	Philipp Harald Nagel	6474	4511

7590 01/30/2003

Samuels, Gauthier & Stevens LLP  
225 Franklin Street, Suite 3300  
Boston, MA 02110

EXAMINER

TRAN, DALENA

ART UNIT PAPER NUMBER

3661

DATE MAILED: 01/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/037,303

Applicant(s)

NAGEL, PHILIPP HARALD

Examiner

Dalena Tran

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 6 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

**Notice to Applicant(s)**

1. This application has been examined. Claims 1-16 are pending.
2. The prior art submitted on 2/15/02 has been considered.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-4, 9-12, and 17, are rejected under 35 U.S.C.102(e) as being anticipated by Meek et al. (6,366,927).

As per claims 1 and 9, Meek et al. disclose a vehicle navigation system that receives sensor data from a plurality of sensors, and provides a map image that is presented on a display, system comprising: a navigation map data memory that includes map data indicative of roadways stored in Cornu spiral form (see the abstract), and a navigation processing unit that receives the sensor data, and requests map data from navigation map data memory associated with the sensor data, and computes the map image from map data (see columns 1-2, lines 13-57).

As per claims 2 and 10, Meek et al. disclose map data includes data indicative of a unit Cornu spiral (see columns 5-6, lines 62-41; and columns 9-10, lines 20-28).

Art Unit: 3661

As per claims 3 and 11, Meek et al. disclose navigation processing unit computes map image using Cornu spiral polynomial coefficients stored in navigation map data memory (see columns 10-12, lines 29-63).

As per claims 4 and 12, Meek et al. disclose terms of polynomials of the unit Cornu spiral are stored in navigation map data memory and map image is computed using terms of polynomials of the unit Cornu spiral (see columns 4-5, lines 60-22).

Claim 17, is method claim corresponding to system claims 1, and 9 above. Therefore, it is rejected for the same rationales set forth as above.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5,7-8,13, and 15-16, are rejected under 35 U.S.C.103(a) as being unpatentable over Meek et al. (6,366,927) in view of Yamamoto et al. (6,438,494).

As per claims 5 and 13, Meek et al. do not disclose Taylor series. However, Yamamoto et al. disclose terms of polynomials are associated with Taylor series expressions indicative of Cornu spiral (see columns 1-5, lines 52-30; and columns 5-8, lines 60-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Meek et al. by combining terms of polynomials are associated with Taylor series expressions indicative of Cornu spiral for accurately determine a Cornu spiral form of roadways and provide an accurate map image.

Art Unit: 3661

As per claims 7 and 15, Meek et al. disclose navigation map data memory includes coordinates of the unit Cornu spiral stored in a table, from which all the Cornu spirals of the navigation map are derived (see columns 5-8, lines 62-58).

As per claims 8 and 16, Meek et al. disclose navigation map data memory includes coordinates of the unit Cornu spirals stored in a table, from which all the Cornu spirals of the navigation map are derived for roads, railroad lines, rivers, lakes, and similar cartographic parameters defined as Cornu spirals (see columns 2-4, lines 57-52).

7. Claims 6, and 14, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

. Meek et al. (6,029,173)

. Okada (6,268,825)

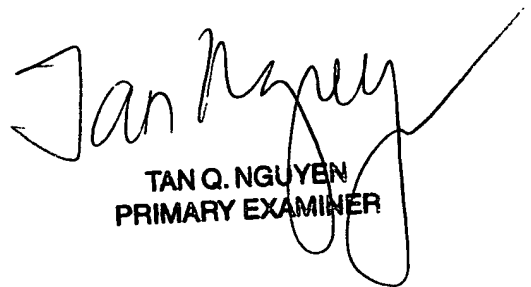
. Kamiya (6,304,818)

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

Art Unit: 3661

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



TAN Q. NGUYEN  
PRIMARY EXAMINER

/dt  
January 21, 2003